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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/762,095	01/21/2004	Aaron Schipper	TCI-P0003	4559
27268 7590 10/03/2007 BAKER & DANIELS LLP 300 NORTH MERIDIAN STREET SUITE 2700 INDIANAPOLIS, IN 46204			EXAMINER KURTZ, BENJAMIN M	
			ART UNIT 1723	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/762,095	SCHIPPER, AARON	
	Examiner	Art Unit	
	Benjamin Kurtz	1723	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 August 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,5,21-47,49-57 and 59-62 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,5,21-47,49-57 and 59-62 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

1. The amendment filed 8/29/07 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: paragraph [0015] has been amended to state that the inlet is devoid of flow restrictions. This limitation was not previously part of the written description and this feature has not been presented as being in the possession of the inventor at the time of invention.

Applicant is required to cancel the new matter in the reply to this Office Action.

Claim Objections

2. Claim 36 is objected to because of the following informalities: Claim 36 has the wrong status identifier. It should be labeled as (Currently Amended). Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 43, 49 and 53 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter

which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Regarding claims 43, 49 and 53 the specification does not indicate the outlet being substantially devoid of flow restrictions. The addition of a flow restrictor to the outlet is not precluded by the description and the description does not provide support for this negative limitation.

4. Claims 21-26, 49, 50, 60 and 61 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 21 states a minority portion of the tubes are positioned in the direct flow path of the liquid directly between the inlet and the outlet of the shell. The direct flow path of the liquid directly between the inlet and the outlet is not clearly defined as to its orientation, relative size, etc. A flow path of fluid is a process limitation and does not positively recite any structure such as a baffle or an orientation of the inlet and the outlet in respect to another part of the apparatus. For examination purposes the direct flow path of fluid is assumed to be a straight line between the inlet and the outlet having a dimension equal to the diameter of the inlet and outlet.

Claim 61 recites the limitation "the first mentioned segment and the second mentioned segment". There is insufficient antecedent basis for this limitation in the claim. For examination purposes there are assumed to be two segments, a first segment below the direct flow path and a second segment above the direct flow path.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 21, 24, 50 are rejected under 35 U.S.C. 102(b) as being anticipated by Williamson et al. US 5 443 724.

Regarding claim 21, Williamson teaches an apparatus comprising: a shell (12) having an inlet (the tube on the right hand side of fig. 4, adjacent to (18)), an outlet (34) and an inner cavity in fluid communication with each of the inlet and the outlet, and a plurality of tubes (20) positioned within the inner cavity of the shell such that the tubes are oriented substantially parallel to each other, each of the tubes having a longitudinal axis, and at least one of the tubes having a surface with a plurality of apertures, a minority portion of the plurality of tubes being positioned in the direct path of the flow of liquid directly between the inlet and outlet of the shell with the flow of fluid between the inlet and outlet flowing directly across the minority portion of the plurality of tubes in a substantially radial direction, a majority portion of the plurality of tubes being larger than the minority portion of the plurality of tubes and positioned outside of the direct flow path of the liquid directly between the inlet and outlet of the shell, and an air vent (fig. 4, col. 13, lines 49-52).

Regarding claims 24, 49 and 50, Williamson further teaches the shell further comprises a bottom section including an aperture (14) (fig. 4); the outlet is substantially

Art Unit: 1723

devoid of flow restrictions (fig. 4); the inlet has a minimum cross-sectional area of flow and the outlet has a minimum cross-sectional area of flow that is substantially equal to the minimum cross-sectional area of flow of the inlet (fig. 4).

Regarding claims 60 and 61, Williamson further teaches a segment of the majority portion of the plurality of tubes is positioned below the direct flow path of the flow of liquid and the segment is larger than the minority portion of the plurality of tubes (fig. 4); and a second segment of the majority portion of the plurality of tubes is positioned above the direct flow path across the direct flow path from the first segment and the second segment is larger than the minority portion of the plurality of tubes (fig. 4).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1, 27-29, 31-38, 41, 42, 48-59 and 62 are rejected under 35 U.S.C.

103(a) as being unpatentable over MacDuff US 6 893 485 in view of Elmi US 5 500 132 and Muller US 4 443 346.

Regarding claim 1, MacDuff teaches an apparatus for removing air or debris from a flow of liquid, the apparatus comprising: a shell (40) having an inlet (40c), and outlet (40b), and an inner cavity in fluid communication with each of the inlet and outlet, and an elongate coalescing medium assembly (17) disposed within the cavity of the shell

Art Unit: 1723

the assembly having a wire mesh tube having ends, a longitudinal axis extending between the ends and a side wall extending between the ends the flow of liquid is directed to travel in a radial direction across the wire mesh tubes (fig. 3, col. 4, lines 10-25) MacDuff does not teach the coalescing medium assembly including a plurality of wire mesh tubes of a core element having greater rigidity. Elmi teaches a coalescing medium assembly including a plurality of perforated tubes oriented substantially parallel to each other with a core element (fig. 2). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the plurality of tubes as taught by Elmi because multiple tubes provides for the lighter material that did not coalesce on the first tube to contact subsequent tubes (col. 4, lines 34-43). Elmi does not teach the core element having a rigidity greater than the other tubes of the assembly. Muller teaches an elongate core element (5) contacting a plurality of tubes and oriented substantially parallel to the plurality of tubes, the elongated core element having a rigidity greater than the wire mesh tubes (fig. 1 and 2). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the assemblies with the teachings of Muller (346) because the central tube serves for supporting the filter tubes (col. 2, line 48).

Regarding claims 27, 43 and 44, MacDuff further teaches the ends of each wire mesh tube are positioned at first and second longitudinal positions along the longitudinal axis, and the outlet has a longitudinal position between the first and second longitudinal positions of the ends (fig. 3); the outlet is substantially devoid of flow restrictions (fig. 3); and the inlet has a minimum cross-sectional area of flow and the outlet has a minimum

Art Unit: 1723

cross-sectional area of flow that is substantially equal to the minimum cross-sectional area of flow of the inlet (fig. 3).

Regarding claim 45, MacDuff teaches the inner cavity of the shell has an interior diameter (fig. 3). Elmi teaches a plurality of coalescing tubes each having a diameter (fig. 2). The combination of the plurality coalescing tubes of Elmi within the shell of MacDuff would inherently have the diameters of the plurality of tubes be less than the interior diameter of the shell in order for the plurality of tubes to fit.

Regarding claims 28 and 29, Elmi further teaches the coalescing medium assembly further includes a coupling element (the cubic frame) that surrounds and holds together the plurality of tubes (fig. 2); and Elmi further teaches the coalescing medium assembly includes a band wrapped around the coupling element and holding the coupling element in engagement with the plurality of wire mesh tubes (fig. 2).

Regarding claims 46 and 47, how the flow of fluid enters the wire mesh is a process step and does not further structurally limit the apparatus; the velocity of the flow of fluid being greater at the inlet than in the shell is also a process step and does not further structurally limit the apparatus.

Regarding claim 62, Mere duplication of parts has no patentable significance unless a new and unexpected result is produced, *In re Harza*, 124 USPQ 378 (1960). Providing more coalescing medium assemblies would provide a greater surface area for the coalescing of air and for greater filtration which is a predictable result and obvious to one of ordinary skill in the art.

Art Unit: 1723

Regarding claim 31, MacDuff teaches an apparatus for removing air or debris from a flow of liquid, the apparatus comprising: a shell (40) having an inlet, and outlet, and an inner cavity in fluid communication with the inlet and the outlet, and one elongate coalescing medium assembly (17) disposed within the inner cavity of the shell, the coalescing medium assembly including: an elongate core element. MacDuff does not teach a plurality of wire mesh tubes. Elmi teaches a plurality of tubes having a longitudinal axis, the tubes cooperating to define an interior space therebetween, and an elongate core element being positioned with the interior space oriented substantially parallel to the plurality of tubes (the center tube is the elongate core element) (fig. 2). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the plurality of tubes as taught by Elmi because multiple tubes provides for the lighter material that did not coalesce on the first tube to contact subsequent tubes (col. 4, lines 34-43). Elmi does not teach the core element having a rigidity greater than the other tubes of the assembly. Muller teaches an elongate core element (5) contacting a plurality of tubes and oriented substantially parallel to the plurality of tubes, the elongated core element having a rigidity greater than the wire mesh tubes (fig. 1 and 2). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the assemblies with the teachings of Muller (346) because the central tube serves for supporting the filter tubes (col. 2, line 48).

Regarding claims 32 and 33, MacDuff further teaches an end cap (the upper part of (40)) including a recess where an end of the elongate core element is received in the

Art Unit: 1723

recess (fig. 3); and MacDuff and Elmi teach the elongate core element comprises a cylindrical tube (fig. 2, both references).

Regarding claim 34, Elmi teaches the plurality of tubes but does not teach the tubes arranged in a substantially circular pattern when viewed along the longitudinal axis. It would have been obvious to one of ordinary skill in the art at the time the invention was made to arrange the tubes in a circular pattern so the plurality of tubes will better fit within the shell as taught by MacDuff having a circular shape.

Regarding claim 35, MacDuff further teaches the wire mesh tube having substantially horizontal wires and interconnected substantially vertical wires (fig. 2).

Regarding claim 51, MacDuff teaches the inner cavity of the shell has an interior diameter (fig. 3). Elmi teaches a plurality of coalescing tubes each having a diameter (fig. 2). The combination of the plurality coalescing tubes of Elmi within the shell of MacDuff would inherently have the diameters of the plurality of tubes be less than the interior diameter of the shell in order for the plurality of tubes to fit.

Regarding claim 52, how the flow of fluid enters the wire mesh is a process step and does not further structurally limit the apparatus.

7. Claims 36-38, 41, 42, 53-57 and 59 rejected under 35 U.S.C. 103(a) as being unpatentable over MacDuff '485 in view of Elmi '132 and Schwartz et al. US 5 676 740.

Regarding claim 36, MacDuff teaches an apparatus for removing air or debris from a flow of liquid, the apparatus comprising: a shell (40) having an inlet, and outlet, and an inner cavity in fluid communication with the inlet and the outlet, and one elongate coalescing medium assembly (17) disposed within the inner cavity of the shell,

Art Unit: 1723

the assembly comprising a wire mesh tube having a longitudinal axis, where the flow of liquid flows in a direction substantially transverse to the longitudinal axis of the mesh tube (fig. 3). MacDuff does not teach a plurality of wire mesh tubes or a wire mesh retaining wall. Elmi teaches a plurality of tubes oriented substantially parallel to each other, each tube having a longitudinal axis extending between the ends (fig. 2). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the plurality of tubes as taught by Elmi because multiple tubes provides for the lighter material that did not coalesce on the first tube to contact subsequent tubes (col. 4, lines 34-43). Schwartz teaches an apparatus for removing air or debris from a liquid having a coalescing medium (38) surrounded by a retaining wall (40) (fig. 1, 2). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the retaining wall surrounding the coalescing medium assembly as taught by Schwartz because it diffuses and distributes the housing admitted liquid giving the assembly a superior performance (col. 2, lines 9-13). Using a wire mesh in place of the perforated sleeve of Schwartz is an obvious structural equivalent.

Regarding claims 37 and 38, MacDuff further teaches the ends of the wire mesh tube is positioned at first and second longitudinal positions along the longitudinal axis, and the outlet has a longitudinal position between the first and second longitudinal positions of the ends (fig. 3); and an air vent positioned above the tube (fig. 3).

Regarding claim 41, Elmi teaches the plurality of coalescing tubes comprising at least one elongate core element oriented substantially parallel to the plurality of tubes (the tube at the center of the bundle (fig. 2)).

Regarding claim 42, MacDuff further teaches the wire mesh tube includes a sidewall extending between the ends and the liquid enters and exits the sidewalls while passing through the wire mesh (fig. 3).

Regarding claim 53 and 54, MacDuff further teaches the outlet is substantially devoid of flow restrictions (fig. 3); and the inlet has a minimum cross-sectional area of flow and the outlet has a minimum cross-sectional area of flow that is substantially equal to the minimum cross-sectional area of flow of the inlet (fig. 3).

Regarding claim 55, MacDuff teaches the inner cavity of the shell has an interior diameter (fig. 3). Elmi teaches a plurality of coalescing tubes each having a diameter (fig. 2). The combination of the plurality coalescing tubes of Elmi within the shell of MacDuff would inherently have the diameters of the plurality of tubes be less than the interior diameter of the shell in order for the plurality of tubes to fit.

Regarding claims 56 and 57, how the flow of fluid enters the wire mesh is a process step and does not further structurally limit the apparatus; the velocity of the flow of fluid being greater at the inlet than in the shell is also a process step and does not further structurally limit the apparatus.

Regarding claim 59, MacDuff teaches a wire mesh tube includes a plurality of openings but does not teach the size of the openings. Elmi teaches opening in the tubes being 0.25 inches (col. 4, lines 45-52). [W]here the only difference between the prior art and the claims was a recitation of relative dimensions of the claimed device and a device having the claimed relative dimensions would not perform differently than the

Art Unit: 1723

prior art device, the claimed device was not patentably distinct from the prior art device, *Gardner v. TEC Systems, Inc.*, 220 USPQ 777 (1984).

8. Claims 21-23, 49 and 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over MacDuff '485 in view of Elmi '132 and Kuster et al. US 5 490 874 or Mannion et al. US 3 668 822.

Regarding claim 21, MacDuff teaches an apparatus for removing air or debris from a flow of liquid, the apparatus comprising: a shell (40) having an inlet, an outlet, and an inner cavity in fluid communication with each of the inlet and the outlet, and a tube positioned within the inner cavity of the shell, the tube having a longitudinal axis having a surface with a plurality of apertures and an air vent (28) positioned to release air that is removed from the flow of liquid by the tube (fig. 3). MacDuff does not teach a plurality of tubes in the cavity of the shell or a minority portion of the tube positioned in a direct flow path. Elmi teaches a plurality of tubes oriented substantially parallel to each other, each tube having a longitudinal axis and the tubes having a surface with a plurality of apertures (fig. 2). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the plurality of tubes as taught by Elmi because multiple tubes provides for the lighter material that did not coalesce on the first tube to contact subsequent tubes (col. 4, lines 34-43). While MacDuff teaches part of the coalescing medium assembly is in the direct flow path MacDuff does not teach a minority portion of the medium assembly being in the direct flow path. Having a minority portion of the coalescing medium assembly in the direct flow path is a change in dimension. [W]here the only difference between the prior art and the claims was a

Art Unit: 1723

recitation of relative dimensions of the claimed device and a device having the claimed relative dimensions would not perform differently than the prior art device, the claimed device was not patentably distinct from the prior art device, *Gardner v. TEC Systems, Inc.*, 220 USPQ 777 (1984). Furthermore, Kuster '874 and Mannion '822 both teach a minority portion of a coalescing medium being located in the direct flow path.

Regarding claims 22, 23, 49 and 50, MacDuff further teaches the flow of liquid flows into and out of the tubes in a direction substantially transverse to the longitudinal axis of the tube (fig. 3); the air vent is positioned above the tube (fig. 3); the outlet is substantially devoid of flow restrictions (fig. 3); and the inlet has a minimum cross-sectional area of flow and the outlet has a minimum cross-sectional area of flow that is substantially equal to the minimum cross-sectional area of flow of the inlet (fig. 3).

9. Claims 24-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over MacDuff '485 in view of Elmi '132 and Mannion '822.

Regarding claims 24 and 25, Mannion further teaches a coalescing apparatus having a bottom section including an aperture and a bottom section (45) removably attached to the shell (fig. 2). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the aperture and bottom section of Mannion because the structure provides a means for cleaning out any sediment collected within the apparatus (col. 3, lines 56-72).

Regarding claim 26, Mannion further teaches a coalescing apparatus having a bottom section including a valve (45) (fig. 2). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the valve of Mannion

Art Unit: 1723

because the structure provides a means for cleaning out any sediment collected within the apparatus (col. 3, lines 56-72).

10. Claims 39 and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over MacDuff '485 in view of Elmi '132 and Schwartz '740 and further in view of Mannion '822.

Regarding claim 39, MacDuff in view of Elmi and Schwarz teaches the apparatus of claim 36 but does not teach the shell comprising a bottom section that is removably attached to the shell. Mannion teaches a coalescing apparatus having a bottom section including an aperture and a bottom section (45) removably attached to the shell (fig. 2). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the aperture and bottom section of Mannion because the structure provides a means for cleaning out any sediment collected within the apparatus (col. 3, lines 56-72).

Regarding claim 40, MacDuff in view of Elmi and Schwartz teaches the apparatus of claim 36 but does not teach the shell further comprising a valve. Mannion teaches a coalescing apparatus having a bottom section including a valve (45) (fig. 2). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the valve of Mannion because the structure provides a means for cleaning out any sediment collected within the apparatus (col. 3, lines 56-72).

11. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over MacDuff '485 in view of Elmi '132' and Muller '346 as applied to claim 1 above, and further in view of Blace US 4 051 033. MacDuff in view of Elmi and Muller teaches the apparatus

Art Unit: 1723

of claim 1 but does not teach an end cap including a plurality of recesses. Blace teaches an end cap (16) including a plurality of recesses (formed by member (94), fig. 9 and 10, col. 4, lines 28-34) each member (10) being received in a recess. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the end cap of Blace because the end cap secures the tube in place (col. 4, lines 28-34).

12. Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over MacDuff '485 in view of Elmi '132 and Muller '346 as applied to claim 1 above, and further in view of Basse et al. US 4 985 182. MacDuff in view of Elmi and Muller teaches the apparatus of claim 1 but does not teach a wire mesh tube including a wire mesh projection extending from an inner surface of the tube. Basse teaches a wire mesh tube (10) including a projection (16) extending from an inner surface of the tube (10) and into an interior of the tube (10) (fig. 1). It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the projection (16) of Basse (182) with the assembly of Wheeler (913) because the projections define flow paths making good ventilation in the cross and longitudinal directions (col. 1, lines 62-66). Basse teaches the projection (16) may be provided with perforations (col. 4, lines 25-26). Making the projection of a wire mesh would be an obvious structural equivalent.

Response to Arguments

Applicant's arguments filed 8/29/07 have been fully considered but they are not persuasive. Claims 43, 49 and 53 remain rejected under U.S.C. 35 § 112 first

paragraph. There is no indication in the disclosure, as originally filed, that the inventor taught the use of no flow restrictions on either the inlet or the outlet.

Regarding claim 21, applicant has argued that Williamson fails to teach a minority portion of the plurality of tubes is positioned in the direct flow of fluid between the inlet and the outlet. The direct flow path is a process limitation and does not further structurally limit the claimed apparatus nor is the direct flow path sufficiently defined. Regardless the fluid flows radially across the tubes from outside to in and inside to out (fig. 4).

Regarding the rejections under 35 U.S.C. § 103, the relative expense of a combination of teachings of prior art does not preclude a proper combination of prior art teachings. Also, Elmi teaches a coalescing medium that functions using the same principles as the coalescing medium of MacDuff, therefore it would have been obvious to one of ordinary skill in the art to use the teachings of Elmi with MacDuff.

In response to applicant's argument that the examiner has combined an excessive number of references, reliance on a large number of references in a rejection does not, without more, weigh against the obviousness of the claimed invention. See *In re Gorman*, 933 F.2d 982, 18 USPQ2d 1885 (Fed. Cir. 1991).

Conclusion

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

Art Unit: 1723

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Benjamin Kurtz whose telephone number is 571-272-8211. The examiner can normally be reached on Monday through Friday 8:00am to 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Sample can be reached on 571-272-1376. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1723

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Benjamin Kurtz
Patent Examiner
Art Unit 1723

10/1/07

A handwritten signature in black ink, appearing to read 'K. Menon', with a stylized flourish at the end.

KRISHNAN MENON
PRIMARY EXAMINER